

bird watching

ornithology and bird watching

Ornitology and bird watching are so similar and yet so different. Both are based upon the same activity—the study of birds. The difference depends upon the direction and intensity of the study.

Ornithology is a serious business, as is any scientific study of animal or plant life. The ornithologist is usually a researcher, a college professor or other scientist who studies the life, habits, ancestry and other facets of bird life from a clinical point of view.

The bird watcher also studies the birds, but his goal is entirely different; usually it is one of personal pleasure. Bird watching includes the person who casually throws out a few bread crumbs once in a while and also the one who maintains a regular feeding program, providing a water supply summer and winter, and who makes a record of all the birds that come to his feeder. He knows when the first rose-breasted grosbeak arrived, how many juncos he feeds during the winter, and so forth. He may participate in the Christmas bird count, or he may not even know the difference between a nuthatch and a chickadee. It can be extended to any length—pleasure is gained out of every minute devoted to it. This perhaps is the reason why bird watching is so popular.

Also, the casual bird watcher, through intense study, may become an ornithologist. The bird count may lead to a year-round study of the number and kinds of birds observed. This may lead to bird banding which in turn commences an intensive study of individual species. This information may be sent to the local chapter of the Audubon Society and in a short time the bird watcher has become an authority on some phase of bird study. He may become an ornithologist and submit findings and reports to a central bureau.

Ornithology and bird watching—both are pleasurable experiences and return so much to those who follow these pursuits. So think seriously about these activities. You will discover, as have thousands of others, that you are entering a new pleasurable and profitable pastime. Try it and see.

Bird watching provides many advantages for the hobbyist. The person who becomes interested in it adds much to his store of knowledge and, as a by-product, frequently is led into other related valuable activities. It is very flexible, for you can devote as much time to it as you please and yet enjoy it the year around. You can work alone or you can enjoy it as a group activity. And, finally, you will make a contribution to your community when you pass on to others, especially young people, the information and experiences gained from this fascinating pastime.

In another part of this book I pointed out the difference between Ornithology and Bird Watching—Ornithology is a serious, scientific study of bird behavior, anatomy, and characteristics, and Bird Watching is mainly a fun hobby.

birding and birders

There is another group that has given itself the name of "Birders." They do not like or appreciate the image of the Ornithologist who is the "absent-minded professor" or the Bird Watcher who is thought of as the "dowager in the baggy tweeds clutching a pearl-covered opera glass in her hand and all a-twitter with her darling children of the forest"!

The Birder is neither of these. He is a person who basically likes the outdoors, a person who takes an active interest in nature about him and is a conservationist at heart. He likes the idea of attracting and feeding birds. He tries to identify as many as possible and keeps a yearly record of what he sees and when he sees it. He likes long hikes into the country with his family and friends. He usually belongs to a local Audubon club and turns in his records each year so that they may be added to the national bird-study figures. He is serious about his hobby up to a point. It's a no-nonsense endeavor, yet he derives a great deal of pleasure out of the activity. His hobby serves a very useful purpose since the information he gathers is so vital a part of our overall study of present-day ecology. There are about three million people who are part of this activity, constituting a sizeable proportion of the total population who are Birders.

Birding brings people, old and young, out into the open country, into fresh air away from smog and poisonous gases. It encourages hiking and walking that is so beneficial to everyone, and, above all, it affords complete relaxation of mind and body—a clear mind at peace and ease.

So, if you are engaged in this hobby, set your goal to becoming a Birder instead of being just a Bird Watcher. At any rate, enjoy the hobby the way you want to enjoy it. No matter how much or little you contribute, you know you are following a worthwhile activity that pays handsome dividends. Good luck!

it's simple to get started

There is nothing complicated or expensive in getting a start in bird watching. You need no costly equipment, machinery, tools, or clothing. Nor do you have to spend money

for lessons. All you need is the ability to enjoy what nature is offering you. As a matter of fact, bird watching can be as simple as looking out of a window or sitting on a porch. Many people "window-feed" birds on a board attached to an outside windowsill on which they place table scraps or bird feed. Thus bird watching can be an excellent hobby for the shut-in as well as for those who want to pursue it on an indoor-outdoor, winter-summer morning-evening basis.

how to attract birds

There is really nothing difficult about getting birds to come to your yard and feeders. Perhaps the most important requirement is patience. It will take some time to get birds to make regular visits to your premises. I have had birds alight on a new feeder within an hour after it was erected, but this is the exception. Birds are naturally wary of anything new, but after you have gained their confidence, their trust and friendliness will prove surprising. Their needs are simple, and they ask for little. All they want is food, water, and shelter. If you try to duplicate these as they are found in nature, you are bound to attract birds to your yard and garden. Remember, birds do not like "spic-and-span" surroundings. A brush pile, dead limbs, nearby trees, or possibly some weeds will provide them with the cover and perching facilities that their sense of security requires.

As your interest in this new hobby increases, you will want to know more about certain birds which you would like to

You can obtain the confidence of birds. Provide enough food, avoid noise, move slowly, banish all cats, and you will have birds as close companions.



Milwaukee Public Museum Photo

attract to your garden. When you become familiar with them you will learn their likes and dislikes. Soon you will become an experienced bird watcher and you can tell others about your interesting experiences.

all kinds of activities

Most people get into bird watching because it is easily begun, absorbing, and conducive to getting out-of-doors. Although there are many advanced fields for specialists, most people find enough challenge and interest in fields already familiar to us.

Specialized bird-watching activities are pursued by ardent devotees throughout the country. These activities are many and varied and, indeed, in some cases, become lifelong avocations. For example, if you care to specialize, you can become an expert in a particular area. Or you might cooperate in organizing an ornithological society with concrete objectives, such as publishing a local or state book on bird watching. You can also specialize in bird photography and perhaps even sell your pictures to magazines. You can become an expert in bird migration or take up bird banding. Another intriguing specialty is the recording of bird songs and calls.

It is not the purpose of this book to explore all these allied activities in detail. However, the beginner should be aware of the possibilities of the hobby, in addition to mastering the essentials of feeding and sheltering birds. There are many other areas of special interest that can be cultivated.

equipment needed

For more serious bird watching, a pair of binoculars will be helpful to bring distant birds up close for identification. You need not purchase the largest and most expensive pair you can find. Remember that on a long hike you do not want to carry excess weight. Tell a reputable dealer what you have in mind and rely on his advice. Be sure that the binoculars are adjusted before you buy them. They should be kept in a carrying case when not in use.

Another important aid to the bird watcher is a field notebook. An inexpensive, 4 x 5-inch loose-leaf book that you can buy in the five-and-ten-cent store will serve the purpose well. The notebook should be light and have a minimum of pages. In this book you can make notes on your observations (see "Bird Lists," p. 23). This information, which

Bird watching provides a relaxing and healthful form of recreation whether one is alone or with good friends.



National Audubon Society Photo

can be filed according to bird groups when you return home, will become valuable reference material.

Some bird watchers make a life-size drawing of the outline of a bird, print several duplicate copies and insert them in their book. When an unfamiliar bird is seen, the markings, size, colors, and other features can be quickly indicated on one of the outline drawings for later study and identification. These printed outlines are a great convenience for both the inexperienced and the experienced bird watcher.

The more advanced bird watcher sometimes finds additional items of equipment necessary. At a later date you may want a telescope that can be mounted on the door of your car or in a window of your home to command a sweeping view of your yard or the area in which you are driving. Telescopes are made in a range of types and prices that will meet a wide variety of needs.

To complement your growing knowledge of birds, you may decide to start a home library. You can select titles from the excellent variety of classic books that have been on the market and keep abreast of new publications by watching advertisements in newspapers and magazines and checking book-review sections. (See page 189)

An excellent counterpart to a collection of bird books is a record library of bird songs and calls. Within the past few years a number of fine albums have become available and

it is a thrilling experience to listen to them. You will be pleasantly surprised to find out how repeated playing of these recordings will help to identify birds. Advanced bird watchers sometimes depend on hearing to identify a bird, and in some instances it is a more accurate means of positive identification.

As far as wearing apparel for field trips is concerned the only suggestions are that you dress for the weather and wear something that will help you blend in with your surroundings. Overshoes or waterproof shoes are in order if the ground is wet or, your hike is going to take you into swampy or flooded lands.

the fun of a field trip

After you have enjoyed the birds that come to your yard and garden, you can begin thinking about taking a field trip, the main objective of which is to find, identify, and study birds. To start you can make it a sort of combination picnic-bird-hunt.

As you gain experience, you will plan your hikes in some detail. You will find that they will be most profitable if you can traverse a variety of habitats such as open fields, shores, marshes, and woods. Take along your binoculars and other equipment. When you reach a spot where you want to do concentrated observation, look for natural cover such as a tree or bush to hide behind. You can also use a screen to conceal yourself. I have used a regular deck chair with a supported canvas roof. With the chair placed in a quiet spot on the lot of our summer home, and the roof pulled down as far as possible, I sat perfectly still for 20 minutes or so and found that robins and flickers both came to within 3 or 4 feet of the chair.

Experienced bird watchers make their field trips either alone or with not more than one or two other persons. There may be occasions when you will have to travel in larger groups. If your trip is to be worthwhile, your companions should be bird watchers too. Sudden movements and sounds will drive birds away. If the group consists of members of your local bird club, you can learn a lot from the experienced bird watchers.

Family groups can enjoy a field trip together since bird watching appeals to old and young alike.



Hendricks—from the National Audubon Society

Trips can last a few hours, a whole day, or several days. Some hobbyists devote many of their vacations to this healthful activity.

Trips can also be planned for your local Boy Scout and Girl Scout troops or some other group of young people with whom you are associated. Since larger groups reduce the effectiveness of a field trip, the participants should be advised beforehand to heed signals for quiet.

when to look for birds

Your first few field trips will undoubtedly be made sometime during the day. As you gain more knowledge and skill in bird watching, you will discover that the best time to observe birds is the early morning—the earlier the better. Some bird watchers arise long before dawn and get settled in their favorite watching spot before the sun is up. If you can do this, you will be handsomely rewarded.

If you want to see owls, you will have to get out just at dusk or a little after. With a strong flashlight, you will be able to spot some interesting flights. You probably will be struck by the quiet flight of these birds, which seem to glide through the trees like gray shadows.

nesting habits of some of the common birds and where you are apt to see them*

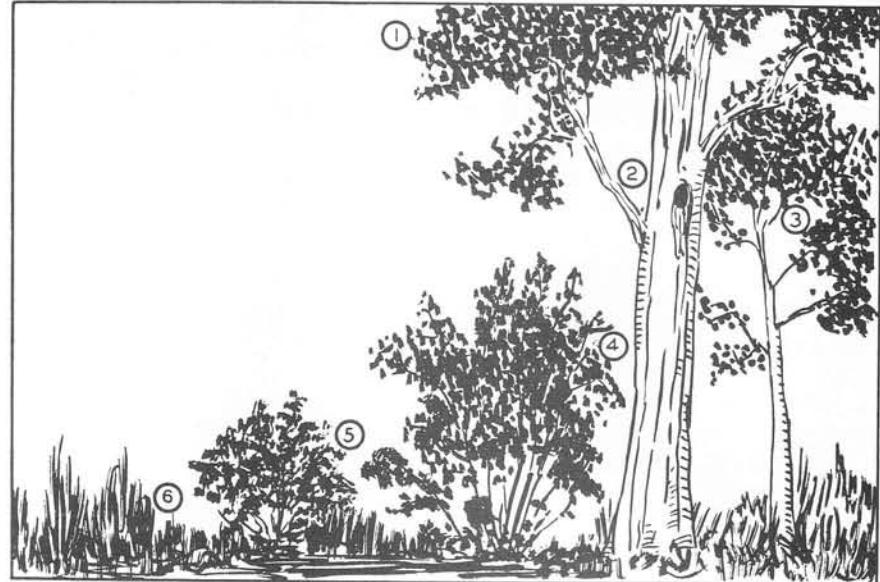
1. Higher branches and treetops: Blackburnian warbler, cerulean warbler, warbling vireo, wood pewee, Baltimore oriole.
2. Tree trunks and hollow branches: Woodpeckers, crested flycatcher, bluebird, sparrow hawk, screech owl, chickadee, tufted titmouse, starling.
3. Saplings and lower branches of trees: Robin, wood thrush, bluejay, red-eyed vireo, scarlet tanager, rose-breasted grosbeak, redstart.
4. Higher bushes and saplings: Yellow- and black-billed cuckoos, yellow warbler, chipping sparrow, mourning dove, goldfinch, cedar waxwing, kingbird.
5. Low bushes: Field sparrow, song sparrow, chestnut-sided warbler, catbird, cardinal, brown thrasher.
6. On the ground: Ovenbird, black and white warbler, junco, veery, towhee, bobwhite quail, whippoorwill.

how and where to find birds

Certain things must be borne in mind if field trips are to be successful. First, bird watching cannot be done along busy streets and highways. It is true that some birds will be found in inhabited areas, especially during migrating seasons. It is best, however, to look for places that are removed from human activities. These may be a wooded fencerow out on a farm, a pasture along a river or stream, a hill, a swamp or marsh, the beach along a lake, or a mill pond. The more secluded the location, the more apt you are to find the birds for which you are looking.

As shown by the sketch on page 22, there are definite areas in which specific birds live. There are treetop birds which are seldom seen along the ground and there are ground birds which should not be sought in treetops. The information presented here, through the courtesy of the Audubon Society, shows where the bird watcher can expect to find certain species of birds. This is where they nest and this is where he is most apt to see them.

Some birds such as the woodpeckers and flickers inhabit woods with heavy tall trees. Meadowlarks and similar spe-



cies will be found in open areas. Even a few hundred feet will make a difference in the kind of birds you see. Gradually, you will find a number of favorite observation posts. To attract the birds after you are on location and the birds are settled down, try making a kissing sound on the back of your hand. The noise will cause the birds to become inquisitive and they will come close. Many stores carry a small bird call made with a rosin stick that produces a squeak. These calls are very helpful in attracting birds. In these hideaways you will enjoy watching and listening to the birds and you will find that their chirping and singing is as pleasant as the sight of the birds themselves.

If your city has a museum, you can study some of the mounted birds. A local zoo may have an aviary that will also prove helpful, and in your library you are sure to find a number of books that show and list the birds that might be seen in your area.

how to identify birds

The scope of this book does not allow space for a detailed treatment of bird identification, although some of the techniques used will be mentioned. The serious bird watcher should obtain one of the several excellent books that are available. They include valuable background information, colored pictures that make identifying birds easy, and they are small and light enough to take along on field hikes.

The average person knows the difference between a pigeon and a crow. But only study and practice will enable him to distinguish one type of warbler or vireo from another. Basically, bird identification consists of placing a bird within its group. The hobbyist does this by learning the characteristics of the chief groups of birds. These general traits include the overall size, the general shape, color, special markings on the body, wings, tail, and head, voice, actions (is he sedate and rested or does he jump around a lot?), and flight characteristics. The beginner should learn where birds are found and what type of surroundings they frequent. This may seem complicated now, but in a short time you will be able to spot these characteristics with surprising ease. If you cannot positively identify a bird, use your field notebook to make a record of your sighting and look it up after you have returned.

Study your guide evenings. Browse through it at leisure. Get to know birds before you encounter them in the field. Get to know where to look for them in the guide. This is an important aid to instant recognition in the field.

bird identification

This book is not a book of bird identification; there are any number of other books that do a complete job of this, as listed on page 189. However, for the beginner, included here are a number of drawings and descriptions of the most often seen common birds.

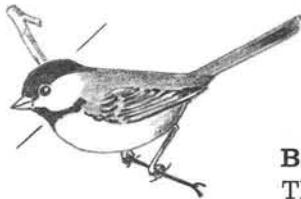
In each case the size of the bird is given. This is from the tip of the beak to the tip of the tail. The common robin is 8½ to 10½ inches long. The common sparrow is 5 to 6¼ inches long. These birds are not shown since they are so familiar to everyone; their sizes are given for comparison with the new birds you will discover.

BALTIMORE ORIOLE (7-8') Male is fiery orange and black with two white wing bars. Female and young are olive brown, yellow below. Build nest of woven fibers in drooping upper tree branch.





BLACK-AND-WHITE WARBLER (5–5½") Creeps down as well as up on trees and branches. Boldly striped in black and white. The female is less conspicuous with whiter underparts. Nest on ground.



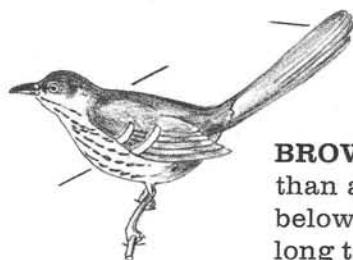
BLACK-CAPPED CHICKADEE (4¾–5½") Usually plump. The only small bird with a black cap, a black bib and white cheeks. Friendly and active. The call is a chick-a-dee-dee-dee or dee-dee-dee.



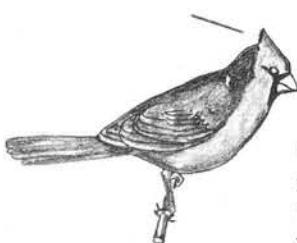
BLUE JAY (11–12") A large bright blue bird, whitish below with bars on wings. Has a crest and black bib. Very noisy and conspicuous most of the year. Usually travel in groups from 4 to 5.



BROWN CREEPER (5–5¾") A brown bird smaller than a sparrow with a slender curved bill and rather stiff tail used as a prop. Climbs tree like a spiral staircase then flies to base.

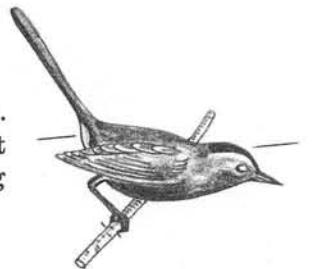


BROWN THRASHER (10½–12") A slim bird slightly larger than a robin. Is bright rufous-red above and heavily striped below in long stripes. Has wing bars, a curved bill and a long tail.

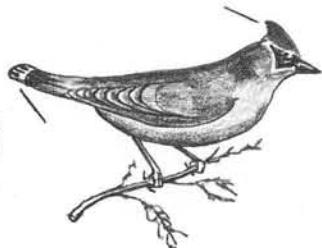


CARDINAL (8–9") Easily recognized since it is the only all-red bird with a crest. The male has a black spot at base of bill. The female is yellow-brownish with a touch of red. Red bill.

CATBIRD (8½–9¼") Slimmer and smaller than the robin. Slate-gray in color with a black cap. Has chestnut red spot under tail coverts not noticeable in the field. Has a mewing song note.



CEDAR WAXWING (6½–8") A sleek, brown, crested bird, between a sparrow and a robin in size. Black mask over the eyes. Has a broad, yellow band at the tip of the tail. Gentle.



COMMON GOLDFINCH (5–5½") The male in summer is the only small yellow bird with black wings. Female in summer is dull olive yellow with blackish wings and wing bars. Flight is very undulating.



EASTERN BLUEBIRD (6½–7½") Larger than a sparrow. The only blue bird with a red breast. Females are paler and duller in color. Many factors have made the Bluebird a favorite over the country.



FLICKER (13–14") Has wide black crescent across breast, red patch on nape. Conspicuous white rump as the bird flies. The yellow underwing and tail give it a golden color in flight.



CRESTED FLYCATCHER (8–9") The only flycatcher with a rufous or red colored tail. Has a gray throat and breast and the belly is yellow. Note is a whistled wheeeeep! rising inflection.





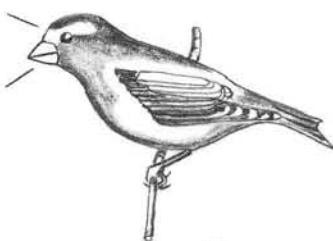
EASTERN KINGBIRD (8½–9") A large black and white flycatcher. When it flies the conspicuous wide white band at the tip of its fanlike tail is its best identification mark. Likes fence posts.



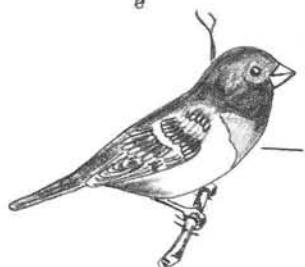
PHOEBE (6½–7") Has no wing bars or eye ring. Gray brown above and whitish below. Constantly wags its tail. The bill is black. Has an upright posture. Repeated call is: "phoe-bee."



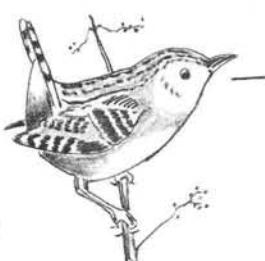
WOOD PEWEE (6–6½") Sparrow-sized flycatcher olive brown above and whitish below with two very conspicuous wing bars but no eye ring. Lower mandible of bill is yellow. Call: "pee-a-wee."



EVENING GROSBEAK (7½–8½") Large, chunky, short-tailed. Dusky yellowish color and extremely large conical white bill. Male has yellow mask above eyes, black and white wings. Female silver gray.



ROSE-BREASTED GROSBEAK (7–8½") Male is black and white with large triangular patch of red-rose on breast. In flight, ring of white flashes across upper feathers. Female very different, like sparrow.

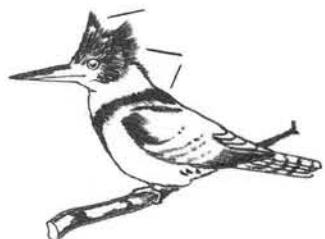


HOUSE WREN (4½–5¼") Very small bird in gray-brown color. Has energetic actions and cocks in tail over its back. Has no facial striping as other wrens have. Very songful. Builds in house.

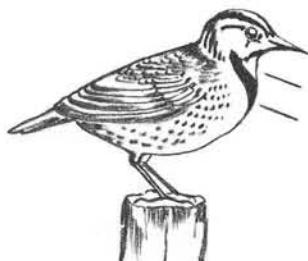
INDIGO BUNTING (5½–5¾") The only bird that is a bright deep, rich blue all over. The female is plain brown with no distinctive markings. Male becomes brown in fall but there is some blue.



KINGFISHER (11–14") Slate-blue head and back. Bushy crest, large head and large beak. Breast is banded in russet. Voice is a high rattle. Nests in tunnels dug in river banks.



MEADOW LARK (9–11") Yellow breast and under part with black "V" on front of neck. Outer tail feathers are white. Chunky light brown bird. Nests in grass.



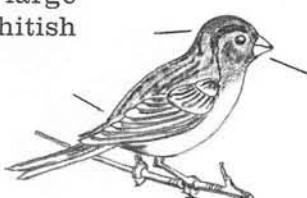
MOURNING DOVE (11–13") A small brown pigeon slimmer than the domestic pigeon. Has a pointed, not fan-shaped, tail which shows large white dots in flight. Call a mournful: ooah, coo, coo, coo.

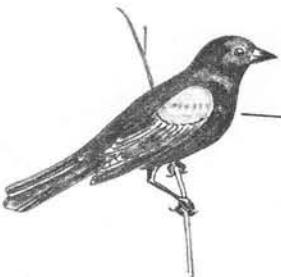


MYRTLE WARBLER (5–6") Has a bright yellow rump. Call is a loud "check." Male in spring is blue-gray above, white below, with heavy inverted "U" in black on breast and sides. Female muted.



PURPLE FINCH (5½–6¼") More old rose or raspberry in color. Rosy-red, brightest on head and rump. Has a large stout bill. The female is heavily striped brown with whitish line over eye.

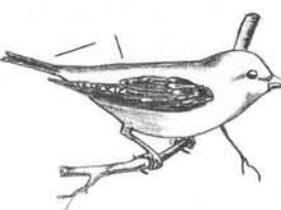




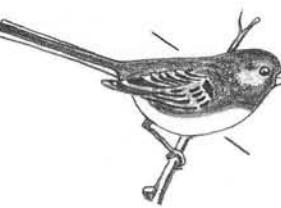
RED-WINGED BLACKBIRD (7½–9½") Absolutely unmistakable. Black bird with bright red shoulder epaulets. Female and young are brownish with sharp pointed bill and well defined stripes below.



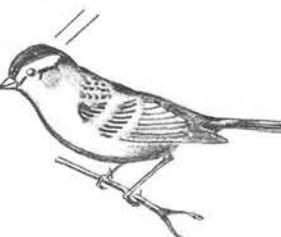
RUBY-CROWNED KINGLET (3¾–4½") Tiny, short-tailed olive gray with two pale wing bars and conspicuous broken eye ring. Male has scarlet crown-patch usually concealed. Stubby tail.



SCARLET TANAGER (6½–7½") A bright scarlet bird with black wings and tail. The winter male, the immature and the female are dull green above and yellowish below. Males moult in fall season.



SLATE-COLORED JUNCO (6–6½") Also called Snowbird. Dark slate-gray with white belly. Has conspicuous white outer tail feathers visible in flight. Some have darker hoods. Young are even colored gray.

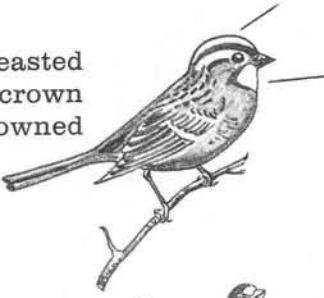


CHIPPING SPARROW (5–5½") A small clear, gray-breasted sparrow with a bright rufous cap and a black line through the eye. Almost domestic. Nests near houses. Adults in winter are dull in color.



SONG SPARROW (5–6¾") Heavily streaked breast with a big "stick pin" or large central spot. Most common eastern sparrow. As it flies, it pumps its tail. Young do not have central spot.

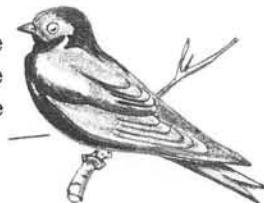
WHITE-THROATED SPARROW (6½-7") Gray breasted with a white throat patch, a striped black and white crown and a yellow spot between the bill and eye. White-crowned is similar but without throat patch.



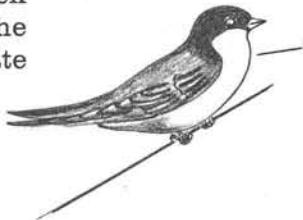
BARN SWALLOW (6-7½") The only swallow with a real "swallow tail." Has white spots on tail, pinkish or cinnamon-buff below and blue-black back. Makes nests of mud in buildings and porches.



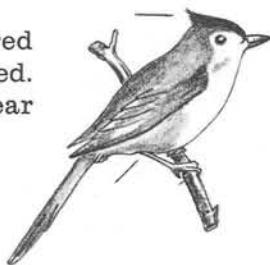
PURPLE MARTIN (7½-8½") Our largest swallow and the only one with a black belly. The male is blue-black above and below, the female is light-bellied. Breed in man-made bird houses.



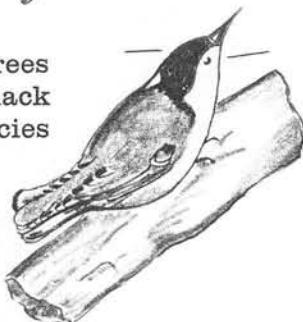
TREE SWALLOW (5-6") Steely blue-black or green-black above with immaculate white under-parts. These are the swallows that gather in great flocks on telephone wires late in summer.



TUFTED TITMOUSE (6-6½") The only gray, mouse-colored bird that has a tufted crest. Its flanks are rusty-colored. Similar to the chickadee but is more wary and flighty. Clear whistle.



WHITE BREASTED NUTHATCH (5-6") Descends trees head down. Black beady eye on white cheek. Has black cap, white below with blue back and wings. Similar species is Red Breasted, has eye stripe.





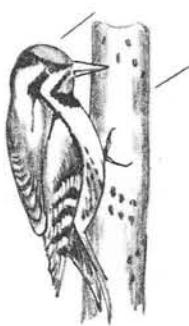
HAIRY AND DOWNY WOODPECKERS (8½–9½" and 6½–7" respectively) Are identical except size. White-backed with checkered black and white body. Small red patch on back of head. Females no patch.



RED-BELLIED WOODPECKER (9–10½") The only zebra striped back woodpecker. Male has entire crown in bright red, female has red on nape of neck only. The young have a brown head, striped body.



RED-HEADED WOODPECKER (8½–9½") The only bird with entirely red head. In flight, large square patches of white show on rear edge of wing. Male and female are alike, young are dusky.



YELLOW-BELLIED SAPSUCKER (8–8½") The only woodpecker with a red forehead patch. Has longitudinal white stripe on black wing. Males have red throats; females, white. Young are sooty.



WOOD THRUSH (7½–8½") Smaller than a robin. Is rust- or rufous-headed with breast and sides heavily spotted. Round spots, not stripes. Similar to Thrasher but Thrush has redder head.

identification by voice

In many cases hearing a bird is just as important as seeing it—sometimes it is even more important. As you get more proficient, you will find that the only way to positively identify some birds is by their voices. For example, the cardinal has five or six different songs or calls. Here is where the advice of a veteran bird watcher comes in handy. On a field trip the experienced watcher will ask the group or individual to be quiet and listen to the voices of the birds. You will be surprised how by careful listening you will hear things that you have never heard before. A set of hi-fi records of all the common bird songs and voices will be helpful. As you get to know birds by their voices, you will know what to look for when you hear a bird call or song.

the bird census

Just as we take the census of people, an effort is made each year to obtain statistics with regard to the bird population. This has been going on for more than 60 years and is known as the Christmas Count since it is taken eight hours a day during ten days or so including Christmas and New Year of each year. The results are tabulated and presented in the Christmas issue of the Audubon Field Notes.

The operation is governed by strict rules and is conducted under the auspices of the National Audubon Society, 1130 Fifth Avenue, New York, N. Y. 10028, and the United States Fish and Wildlife Service, Department of Interior, Washington, D. C. By writing to these organizations you can get pertinent information. Before you do this it will be well to check on possible bird clubs in your area. If there are any, they will have all the plans made for the count and you can work with them.

From these counts, together with data on weather, food supply, and other variable information, much has been learned about the distribution of individual bird species. A better understanding of the requirements of birds is also gained so that better protection can be provided to increase the bird population.

Bird study gives parents and children a valuable common interest.



Hal Harrison—from National Audubon Society

Participating in this important annual census is a valuable contribution to conservation and the science of ornithology and you will find your efforts well rewarded.

In addition to the annual Christmas Count, there are a number of other counts. While they are of less significance, they are just as interesting and enjoyable.

the big day

The Big Day is a 24-hour bird count taken from midnight to midnight usually during the height of the spring migration. The object of this count is to see how many different species of birds can be sighted during this period. This is definitely a group activity. If the group or club is large, it may break up into smaller divisions, each covering a special location such as highlands, open fields, heavy woods, marshes, river banks, and lakeshores. If the group is small, the participants can travel together to cover the best places during the given time.

the big morning

Sometimes the members of a bird club cannot spare the time for an all-day outing. They then may cut down the Big Day to just a morning in which as many species as possible are identified. This half-day count can also be held in the afternoon if need be.

the small day

The small day usually takes place over a 24-hour period but instead of seeing how many birds can be identified the goal here is to study a few birds in much greater detail. This is very rewarding because it provides an excellent opportunity for firsthand acquaintance with the habits, movements, and general way of life of the few birds you have chosen for study. It means, too, that you do not have to cover so much territory but can choose two or three choice spots and divide your time leisurely between them.

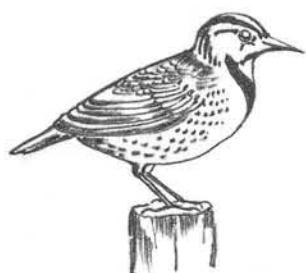
bird photography

This phase of bird watching has many rewards and offers the greatest challenge this hobby can provide. Taking pictures of birds is not a simple task; it requires a vast reserve of patience and ingenuity. Long waits are sometimes necessary before a bird or birds get into the right position and light for a good picture. And it takes ingenuity to get close enough so that a bird can be seen in a picture. If you have never taken pictures before, your first results may fail to satisfy you. Even if you have had some experience with photography, you will have to sharpen your wits and skills.

Those who intend to practice bird photography would do well to obtain a copy of Hunting with the Camera by A. D. Cruickshank. This is one of the best books on the subject. It will eliminate needless experimentation and get you off to a good start in this engaging skill.

While you may already own a camera that can be used for bird photography, special equipment is required. The ordinary 35mm. camera lens is much too small and must be used in conjunction with a quality telephoto lens as shown in the accompanying illustration. The camera in the photograph is installed on a specially made gunstock-type mount which allows the camera to be held very still and rigid. Discuss your plans with your dealer. He may be able to give you valuable advice.

For purposes of convenience, two general types of bird pictures can be distinguished; field pictures and controlled-location pictures.



field pictures

On field trips you will want a light camera of the type illustrated so that you can shoot fast and with a minimum of motion required for adjustments. Birds are extremely fast and you must be ready at all times to take pictures. Remember that any sudden motion will scare them away. When you spot a bird, freeze in position; then walk slowly toward it without sideward motion. Rest at intervals and get as close as possible. It is amazing how large birds appear to the naked eye and how small they become when you get them into your range finder. Nor does their protective coloration make your task easier. Take your picture as quickly as possible. If you wait for just the right pose, you may end up with no picture at all. You will have to build up your collection of photographs by taking the picture available and then replacing the poorer ones with better shots later on.

controlled-location pictures

Perhaps the most interesting and the best pictures are made where the location is controlled as on a feeder or birdbath. When you are attracting birds to your yard with feed and water, you have an excellent opportunity for taking good pictures. Here you have a prearranged setting that will enable you to locate your camera for the best lighting and composition. The camera can be mounted on a tripod close enough to your subjects so that their images will be large and clear like some of the pictures in this book. If the birds seem to be frightened and stay away from the feeder, substitute some object that resembles the camera and keep it in place for several days, if necessary, to

You can combine hobbies such as photography with bird watching.



gain their confidence. The camera can be operated by remote control; use a black fishline and small staples to run the line to the place where you are concealed. This same setup can be used for taking pictures of nesting and feeding, but be sure not to disturb the birds or they will leave the nest and not return. When taking pictures in this manner, you can get sharp prints without a telephoto lens.



Another controlled-location type of picture can be made in the field but this requires a great deal of hunting to find a suitable site and careful preparation beforehand. For this setup you can build a regular hunter's blind that will house you and your equipment. This is an excellent way to get pictures of waterfowl. The best blind is the portable type, made of aluminum poles and a dark green canvas cover that can be moved as often as necessary without causing unnecessary disturbance.

For field photography it is best to wear dark-colored clothes so that you are as inconspicuous as possible. You and your equipment should not contrast with the surroundings.

bird banding

Bird banding is a method of labeling birds to learn more about their migration patterns, nesting and wintering habits, and longevity. Small aluminum bands are numbered and attached by bird banders to a bird's leg. The number of each band is recorded and sent, with a record of the estimated age of the bird and the conditions under which it was found, to the central banding office in Laurel, Maryland. Whenever a banded bird is recaptured or found dead, a report is sent to this office and recorded. To date, almost 12,000,000 birds have been banded.

Bird banders set up a very fine black nylon net about ten feet high and forty feet wide. This is placed in a known flyway, and as the birds are trapped, they are taken from the net, a band is placed on the leg, and a record is made. Then the bird is released. Contrary to what some people believe, the netting of birds does not harm them—at most their feathers and dignity are ruffled a bit. Special wire-netting traps are erected on streams and ponds. Some of these traps are quite elaborate.

Bird banding is usually considered work for the advanced student or ornithologist. It is included here, however, because it is an important aspect of bird watching. There are only a few thousand banders in the entire country, so you can see how specialized a field it is. However, more banders can be used, and this work may be of special interest to you. Bird banding is serious business. Before anyone can put a band on a bird's leg he must obtain a permit from the Fish and Wildlife Service of the United States Department of the Interior, a state permit, and be found qualified to do the work. For complete information on this important branch of bird watching, write to the Fish and Wildlife Service, Department of the Interior, Washington, D.C. They will tell you how to get a copy of Manual for Bird Banding written by F. C. Lincoln.

bird migration studies

Another interesting scientific branch of bird watching is the study of bird migration. This is an intriguing subject, and you will find many books in your library on the subject. For more than fifty years the U.S. Fish and Wildlife Service and the Audubon Society have been collecting data on migration. The phenomenon of bird migration is so important that the Migratory Bird Treaty Act has been passed protecting those species which pass back and forth between the United States, Canada, and Mexico. For active participation, get in touch with your local bird club or contact the Audubon Society or the Fish and Wildlife Service in Washington, D. C. An excellent detailed study, Migration of Birds, circular 16, can be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C.

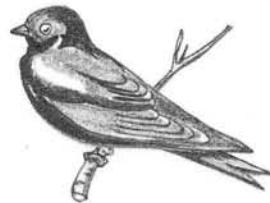
rare bird alert

A favorite activity of many groups is the Rare Bird Alert. Members of a bird group decide what they believe to be a rare bird or species for the area. As soon as one is identified, they alert the other members to be on the lookout for it. A certain amount of ingenuity is demanded but it's a big thrill to get on the trail of the rare bird.

These group activities are enjoyed immensely by all who take part in them. It has been said that if you meet a person in the country or in a park with a pair of binoculars strung around his neck you need no introduction; you just start to talk since you are on common ground!

bird lists

Bird lists have already been mentioned under "Equipment Needed" where it was suggested that the beginner make an entry in a small notebook of all the birds he identifies. The list can be kept from year to year and can constitute a complete record of your activities, making it possible for you to compare your annual findings. Make the entries as complete as possible: the species, where found, date, the time of day, kind of day, other birds in the vicinity, weather, what it was feeding on, where it was nesting, and any other observations you think significant. Consult with others and see what notes they deem important. In addition to the field notebook, some bird watchers enter their on-the-spot observations in a permanent notebook for handy reference.



a few precautions

A word of caution is necessary at this point. By nature, birds are very suspicious. They do not develop trust in man overnight: it takes time to get them to know you and you will have to be patient with them.

Remember, too, that birds are easily frightened. Any noise or sudden motion will put them to flight. Of the two disturbances, noise and motion, they are more easily frightened by motion. Therefore you must move slowly in the yard and garden. Noise, however, does drive birds away too. Keep things quiet and go about your work slowly and the birds will stay.

You cannot, of course, have cats running at large and hope that the birds will be at ease. Cats and birds just don't go together and you must make up your mind at the start which you would rather have. It seems that dogs do not interfere too much but they too should be kept in control in the bird garden.

bird watching in urban areas

It is generally assumed that the city dweller has little or no chance to do any bird watching or feeding. This is especially true of those who live in apartment houses. Most

people believe one must live in the country or in a heavily wooded area to enjoy this hobby.

This is not necessarily the case. True, some bushes and trees must grow in the vicinity to attract the birds in the first place, but once they know that food is available you will be surprised how far they will come to get it. A friend of ours lives in an area of apartment houses. There is not a tree or bush within several blocks of his apartment. However, three blocks away is a park, containing a stream and some bushes and trees, that makes a nice habitat for birds. My friend placed a feeder on his apartment-house window sill, hoping to lure birds from the park, but for several weeks nothing happened. Then one day a common sparrow found the feeder. In a few days there were more sparrows. Now the owner has regular customers of sparrows, chickadees, a pair of cardinals, and, occasionally, other birds.

Do not become discouraged if birds do not appear at once. It may take weeks and weeks before they find the handout, but once they do, you will have to be ready to keep the feeder filled.

We have noticed that if we are away for several weeks and, because of our absence we have not fed the birds, it may take three or four days after our return before the birds are back at the feeders again. Although birds are not the most intelligent of animals, they do seem to form very strong habits that guide and control most of their activities. If they form a habit of coming to your feeder they will continue to come, until you stop putting out food. But once you stop feeding them, you must invite them back again if you want to have them develop the habit of visiting.

Shown on page 82 is a window-shelf feeder that works exceptionally well in an urban area. If you want, you can add a small cup or container for water, such as a tin can, cut down to about an inch and a half high.

An everyday scene on Milwaukee's lake front where mallards and other wild waterfowl gather by the thousands each day. This is an example of how wild birds can be enticed into the heart of a big busy city and enjoy it.



Milwaukee Journal Photo

Again, remember—birds are not fussy. If this feeder is too complicated or you cannot build it, just fasten an ordinary board with a little ridge around it to keep the seeds from falling off to the window sill, and you will certainly find some birds to greet you at your window.

want to start a bird club?*

The approach to starting a club is not the important thing; interest and enthusiasm are the requirements. It takes only two people with a love of nature to start a club, and that club may be as formal or informal as you like.

Start with a few people and meet informally. Take a few field trips and have a few trial meetings before you go any further. When you are ready to broaden your group, ask your local newspaper to publish the fact. Have a meeting in some accessible place with a good speaker and see who shows up. Don't worry in the least about getting a large number of people. It is far, far better to begin building with a small group of enthusiastic workers than to launch your club with several hundred men and women who drop out after the first month.

After two or three meetings with a temporary chairman you ought to know enough to make permanent plans. A sensible procedure at this point is to draft a constitution.

Article One of the constitution usually specifies the name of the club. Every bird club that I am familiar with is named either after an individual prominent in ornithology or after the area that the club will serve. Let your name denote your function. If you are going in for serious scientific study, use the six-syllable word and name yourself an "ornithology" society. But if you are to be just a congenial group of friends who promote conservation and take an occasional bird walk, call yourself simply a "bird club." Many clubs have found it a great advantage to become branches of the National Audubon Society. The name has wide appeal and commands community respect and serves as an attraction to speakers for local programs.

Article Two will explain your purpose. What are you trying to do? Have a social group interested in good fellowship? Improve your own knowledge of wildlife? Engage in sci-

* By Louis C. Fink. Condensed by special permission from Audubon Magazine.



tific studies? Educate children? Are you interested in just birds or in all wildlife? Make it clear in your purpose.

Article Three is delegated to membership. May anyone join? How old shall they be? Most clubs provide for student memberships at reduced rates, particularly if they are in a college town where the students may be doing good ornithology research.

Article Four covers meetings. It is normally the custom to meet once a month. The larger clubs have a tendency to meet in public libraries or schools, usually on a public transportation line. Smaller clubs meet in private homes. There should be a provision for an annual meeting.

Article Five should provide for the election of a board of directors. Personally my choice is to have a "Board" which carries on most of the business affairs so your club meetings can hear a few simple reports and vote on just the major issues. All reports should be in writing to save meeting time. Officers are the routine ones: chairman of the board, president, vice-president, secretary, and treasurer. A program committee is essential to success. There must be a meeting place, a speaker, a film, or topic for discussion. It's an excellent idea to have sizable committees to share the burden.

Other Suggestions. I heartily recommend a bulletin, even a simple mimeograph job. It should contain a list of birds seen in your area that month; a notice of next month's meeting and field trips; and some hints of birds to come in the next season.

School and garden clubs will ask you for speakers. As you accumulate funds, plan to buy some bird slides from the National Audubon Society. Bird study will be more fun—and your club stronger—if you affiliate with state and national organizations.

A word about indoor meetings. Keep the business portion as short as possible. Strike a balance between pure entertainment and pure study but don't ignore either. I think it is a mistake to have "refreshments" at every meeting. It is too easy for a bird club to become nothing but a social organization. In that event your good birders will drop out and the social-minded members left will not do much bird study or conservation.

Your leading members can give talks on bird identification. Someone else can discuss bird books (with the help of your

local library) and binoculars. If you have any biologists in the area, ask them to talk on the coloration of birds and other subjects. For entertainment consider films from the National Audubon Society, the U. S. Fish and Wildlife Service, individuals, state game commissions, national and state parks, etc.

plantings that attract birds

Plantings perform three functions in a bird-attraction program. First, they supply an additional source of food. The seeds and the fruits of trees, shrubs, vines, and flowers are the natural food of birds. The insects that attack these plantings are also excellent food. Second, plantings offer a place for nesting. In general, birds will prefer natural facilities for building their nests and will use them if available. Third, dense plantings of the right kind give the cover the birds need for protection from their natural enemies.

Well-planned plantings will result in a better landscaped yard and will attract more birds. Try to duplicate nature as closely as possible, so that there will be both open and dense areas. Different foliage attracts different species of birds. The more varied your plantings are, the better will be your chances of attracting a variety of birds.

Locate trees toward the rear, put shrubs and vines in front of them, and then flowers for ground cover. See your local nursery for guidance in selecting what you need and for planning your layout.

Be sure that your planting layout provides for the strategic location of birdhouses, birdbaths, and feeders. If your lot is large enough, include a nature trail. With a little plan-



An open space with trees and shrubs in a natural setting makes an ideal place for attracting birds.

Gene Heil—from the National Audubon Society



ELM



ASH

ning you can have a secluded path even on a small lot. A few open spots along the way will surely be a favorite retreat of the birds. The following pages give a list of the more popular trees, shrubs, vines, and flowers.

popular trees that attract birds

ALDER A small tree or bush that is good for mass planting. Provides fair cover for protection but is not used by birds for nesting. Produces a fruit in August and September that is eaten by over 20 species of birds such as the tree sparrow, bobwhite, pheasant, grouse, woodcock, and mourning dove.

AMERICAN ELM An excellent tree for landscape use. Grows up to 129 feet tall. Provides good nesting and is excellent for swinging nests such as those of the oriole. Produces a winged nut seed in March and May that is eaten by the goldfinch, pine siskin, and others. Insects in the bark are eaten by vireos and warblers.

ASH Grows up to 120 feet. Not too good for city planting. Provides good nesting and some protection. Has winged seed in October and November eaten by the purple finch, grossbeak, and bobwhite.

BASSWOOD OR LINDEN Excellent for shade planting. Grows up to 110 feet tall. Has beautiful shape, grows fast, and provides good nesting and protective covering. In August to October it has a nutlike fruit eaten by many birds such as the redpoll, bobwhite, and grouse. Insects in the bark are eaten by warblers, vireos, and others.

BEECH A large ornamental tree not common in city yards; more suited to its natural surroundings. Provides good nesting facilities and protective cover. A three-angled nut is produced in September and October that is eaten by woodpeckers, blackbirds, flickers, wood duck, blue jays, and others.

BIRCH Has excellent landscape value and offers good nesting. Decayed limbs are used by woodpeckers and chickadees. Has a small seed in late summer that appeals to the titmouse, junco, finch, and blue jay. Insects that infest the tree are eaten by the warblers and vireos.

CHERRY-BLACK, CHOKE, AND RED (WILD) Not too ornamental and grow best in the wild state. Other trees provide more protection and are better for nesting. Excellent for food. Their fruit (the cherry) attracts over 80 species of birds.

BALSAM FIR Excellent in the wild state and in rural areas. Will not do well in the city because smoke and gases affect it. Provides excellent cover and nesting both in winter and summer. Seeds are in cones which ripen in September and provide food all winter if retained. The seeds are eaten by the robin, waxwing, grouse, thrushes, and other northern birds.

FLOWERING CRAB A very attractive tree for lawn planting. Has rose-colored flowers in May. The larger trees provide good protective covering and good nesting. The small fruit is excellent for winter feeding and attracts such birds as the mockingbird, grosbeak, finch, and crossbills and the game birds.

FLOWERING DOGWOOD A favorite ornamental tree, suitable for small or large plantings. Offers a fair amount of cover and the robin and vireo will nest in it. Its red berries are eaten after they are softened by frost. Attracts over 90 species of birds so it is one of the most popular trees with bird fanciers.

HACKBERRY Not an ornamental tree; best suited for wild planting. Fair for cover and nesting. Available the entire winter, its berries are eaten by cardinals, thrashers, waxwings, and over 45 other species.

HAWTHORN A very attractive and popular ornamental tree that is one of the best for landscape value and bird attracting. The thorny, thick growth provides excellent cover and nesting. The thorn apples are eaten by birds all winter. Over 35 species eat the fruit including the bobwhite, thrushes, and grouse.

MAPLES There are many varieties all of which have good landscape value. The dense foliage gives good cover and nesting facilities. A winged nut seed is produced in summer that appeals to over 15 species of birds including nuthatches, robins, and song sparrows.

MOUNTAIN ASH Excellent for ornamental planting but not very good for nesting and cover. The red and orange berries provide fall and winter food for robins, waxwings, woodpeckers, and orioles.



CHOKE CHERRY



RED MAPLE



MULBERRY



RED OAK



SPRUCE

MULBERRY Its graceful, light-green foliage makes it a good tree for ornamental planting and provides good coverage and nesting. Its soft, juicy fruit is eaten during the early summer and the entire nesting season. Attracts over 40 species of birds including cardinals, catbirds, thrushes, and mockingbirds.

NORWAY SPRUCE One of the most popular of the ornamental trees, often planted to provide a wind break. Excellent for nesting and cover. The cones have seeds that are eaten by finches, grouse, grosbeaks, and other birds.

OAK (RED) Excellent for ornamental planting but grows very slowly up to 150 feet tall. Good for nesting and protection. Produces acorns, which are eaten by almost all species of birds. The insects that infect the bark are also eaten by birds. Almost all oaks possess these characteristics. The Northern Red Oak is found from Maine to Minnesota.

RED CEDAR Over 30 species are known and most of them are used extensively for ornamental planting. Provides a year-round shelter and is good for nesting. The purple-blue berries ripen in early fall and provide food throughout the entire winter. Attract all the native birds that inhabit the eastern half of the country.

SHADBUSH A small tree that has white blossoms in May. Offers only fair cover and nesting facilities. In midsummer it produces red berries that are eaten by over 50 species of birds, which makes it a favorite for attracting birds.

SOUR GUM An unusual tree that has brilliant colors in fall. Provides good cover and nesting. Its blue berries last well into winter and are eaten by wood ducks, woodpeckers, thrushes, waxwings, blue jays, pheasants, robins, and many other beneficial birds.

WHITE PINE Its fine height makes it excellent for background planting. It provides excellent cover, good nesting for finches, siskins, and warblers, and good roosting for owls. Its cones provide abundant seed for food. Attracts bobwhites, woodpeckers, pine siskins, nuthatches, warblers, and many other birds.

WHITE SPRUCE Grows tall and is very beautiful. Has fine landscape value and provides excellent cover and nesting. The cones bear seed that are eaten by crossbills, finches, chickadees, woodpecks, and over 20 other species.

popular shrubs that attract birds

ARROWWOOD Excellent for mass planting. Grows up to 15 feet high and provides good nesting and cover. Produces a blue berry in early fall that is eaten by birds migrating south. Attracts flickers, catbirds, bluebirds, and more than 30 other species.

ASIATIC SWEETLEAF A fine, showy bush for single planting. With only fair nesting and cover qualities, it is better known for its food value. Has a beautiful blue berry sought by birds during the fall. Attracts vireos, robins, and almost all other songbirds.

BAYBERRY Not too attractive for landscape use and only fair for nesting and cover. However, it is the best bird food producer in the eastern states with its fruit which lasts through the entire winter. Attracts more than 75 species of birds, including all the native species.

BLACKHAW Grows 20 feet high singly or in groups. Provides good nesting and cover. Has a blue-back berry that lasts through the winter. Woodpeckers, waxwings, thrushes eat it, as do more than 30 other species.

BLACK HUCKLEBERRY Has fair landscape value and is quite attractive in the fall. Provides fair cover but no nesting to speak of. Fruit is available for a short time during the summer only and is a favorite for more than 45 species of birds such as grosbeaks, towhees, bluebirds, robins, chickadees, and catbirds.

BUCKTHORN Makes a good hedge and provides fair to good nesting and cover. Has a black fruit in late summer and early fall that is eaten by both song and game birds such as grouse, pheasants, finches, thrashers, and waxwings.

BURNING BUSH A good landscape bush in the Midwest that grows from 6 to 10 feet high. It provides fair cover. The seeds ripen in October and stay on the bush until midwinter. Fruit is flame colored. It is eaten by 15 species including grouse and pheasant in late fall.

CORALBERRY Fine for mass planting. Provides good cover and excellent nesting for sparrows. The coral-colored berries ripen in late summer and stay on the branches through winter. They are eaten by both song and game birds.



BUCKTHORN



DOGWOOD



ELDERBERRY



HIGH BUSH
CRANBERRY

DOGWOODS There are many varieties all of which have good landscape value in the flowering season and some of which are very beautiful with their yellow or red stems in the winter. Afford good protection and fair nesting, especially in the wild state. In September a blue-white berry is formed that is available to birds until midwinter. Favored by all birds.

ELDERBERRY Good for mass planting and as a wild shrub. Can be seen along country roadsides. Gives good cover and nesting. The juicy black fruit ripens in late summer and early fall and is eaten by over 115 species of birds which makes it a natural for the bird garden.

HIGHBUSH CRANBERRY Has exceptionally fine flowers, foliage, and fruit and is recommended by the Soil Conservation Service. Its fine growth provides good nesting and excellent cover. The fruit ripens in September and October and lasts through the winter. Eaten by game birds but only a few songbirds.

HIGHBUSH BLUEBERRY A thick well-shaped shrub that has excellent fall foliage. It has good cover and fair nesting qualities. The fruit is the market variety of blueberry that ripens in midsummer. The berries are eaten by over 90 species of birds.

HONEYSUCKLE Almost a vine in shape. Provides good cover and nesting. The crimson berry ripens in fall and is available until early winter. It is eaten by birds while migrating. Almost all songbirds feed on the berry.

INKBERRY An evergreen shrub that has fine landscape use. Mass planting provides good cover. Produces a black berry that is the winter food of many birds such as the chickadee, titmouse, bobwhite, bluebird, robin, and catbird.

JAPANESE BARBERRY A widely used ornamental shrub that may be trimmed into hedges. Its sharp thorns provide excellent protection and good nesting for birds. Has a red berry that serves as an emergency food during winter. Eaten by sparrows, juncos, catbirds, thrushes, and many others.

MAPLE-LEAVED VIBURNUM Excellent for low mass plantings—very popular with nurserymen. Good for ground nesting birds such as grouse. Affords fine cover and produces fruit in fall for winter feeding. Attracts the flicker, robin, grouse, bobwhite, waxwing, bluebird, and others.

NANNYBERRY Has white flowers and black berries and is fine for mass plantings. It provides both nesting and cover. Its fruit is the staple winter food for grouse, pheasant and many songbirds.

PASTURE ROSE Grows 3 feet high and is fine for mass planting in wild gardens and woods. The strong, stiff spines provide the best possible protection for birds. It is used by some low-nesting birds. The red berry is available all winter and enjoyed by some 40 species of birds.

SAND CHERRY A low-growing bush hardly over 3 feet high. Wants sandy soil. Has only fair nesting and coverage qualities. The red-purple berry ripens in August and is related to the choke cherry. Provides food for almost all song and game birds.

SNOWBERRY A good shrub for border planting in masses with good nesting and protective qualities. The white fruit stays on the branches all winter. Over 30 species eat the fruit.

WILD RASPBERRY (RED AND BLACK) Best in wild surroundings; does not have good landscape value. The thick growth and the thorny spines make it excellent for protection and nesting. Late summer produces the red and black raspberries that are eaten by over 100 species of birds.

WINTERBERRY Has good landscape value: grows 5 to 10 feet high and has fine flowers and scarlet berries. Has both nesting and cover qualities. The scarlet berries ripen in September and stay on the branches well into winter thus providing natural food for both song and game birds.

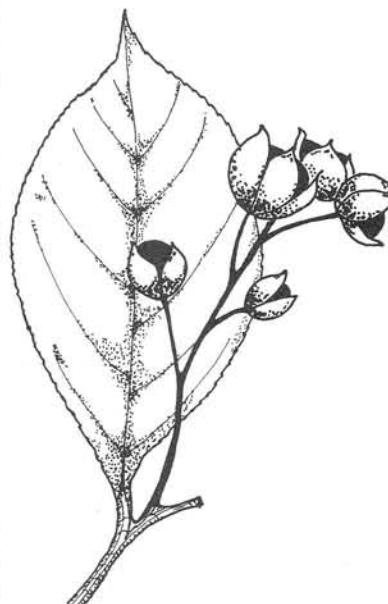
WITHE ROD A very good landscape bush with showy-white flowers and varicolored berries. Provides good nesting and cover. Berries last into winter and are eaten by over 35 species of birds.



NANNYBERRY



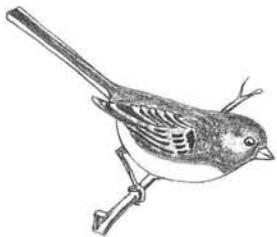
WINTERBERRY



BITTERSWEET

popular vines that attract birds

BITTERSWEET A very popular vine with red-orange berries that are attractive not only outdoors but in the house as well. Is now protected in public areas and should not be picked. Has good landscape qualities when grown on an



arbor. Has no nesting or cover qualities to speak of. The berries are an excellent source of bird food in fall and well into the winter. Eaten by both song and game birds.

MATRIMONY VINE When planted in masses or as a wall covering, it has good landscape value. Vine has strong spines which provide excellent protection and nesting. The scarlet fruit is available in fall and early winter and is eaten by migrating and local songbirds.

GREENBRIER Has little landscape value, but its thick growth gives it good nesting and covering qualities for protecting birds. The fruit is excellent and lasts the entire winter well above the snow line. It is eaten by 50 species.

HALL'S HONEYSUCKLE The flowers are attractive and the vine is used extensively as a wall covering. Affords good winter protection since the leaves stay on. Also provides good nesting. The black berries last well into winter. Such birds as song sparrows, flickers, grouse, and meadow larks feed on them.

VIRGINIA CREEPER Another popular vine used extensively for decoration. Has brilliant color in fall. Provides good cover and nesting. The Virginia Creeper is perhaps the best producer of natural food for birds and should be planted wherever possible.

WILD GRAPE This prolific vine has no landscape value for formal planting but it is a must for the wild garden. It provides only fair cover and nesting but its grapes are the fall and winter diet of almost all birds. This one vine will attract every species of birds.

ground cover planting of flowers

Almost all kinds of flowers provide seed food for birds. Their bright blooms not only attract birds but also beautify the owner's grounds.

In planting flowers as ground cover, locate them in clusters, not as single specimens. Some of the species that are especially desirable for this purpose include princess feather, love-lies-bleeding, sunflowers, bellflower, chrysanthemum, columbine, pinks, cosmos, portulaca, and gaillardia. These can be used for borders along the garden path or in front of the shrub plantings.

If you are making a nature trail, wild flowers ought to be planted along it. To give the right effect, they should be planted in large patches, just the way they grow in nature.

Clusters of asters, black-eyed Susans, blazing star, chicory, and asparagus are suggested. In the typical wild garden, the grass is not cut and no attempt is made to give it that manicured look which marks exclusive residential neighborhoods. Rough and natural surroundings are quite to the liking of birds and provide a natural habitat for them.

